



PATENT  
Attorney Docket No.: TSC-0015  
Customer No.: 29344

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Mark H. Litchfield, *et al.* Examiner: Not Yet Assigned  
Serial No.: 10/642,720 Group Art Unit: 3712  
Filing Date: August 18, 2003  
Title: SYSTEM AND METHOD FOR DETERMINING ORIENTATION BASED ON SOLAR POSITIONING

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited with the United States Post Office as First Class Mail on the date indicated below in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

12-15-03  
Date

Vanessa Marakas  
Vanessa Marakas

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL LETTER

Sir:

Enclosed herewith for filing in the above-identified patent application please find the following listed items:

1. Information Disclosure Statement;
2. Forms PTO-1449 and copies of cited references AR-AT and BR-BT; and
3. Return Postcard.

In connection with the foregoing matter, please charge any additional fees which may be due, or credit any overpayment, to Deposit Account Number 50-1798. A duplicate copy of this letter is provided for this purpose.

Respectfully submitted,

Date: December 15, 2003  
Mills & Onello, LLP  
Eleven Beacon Street, Suite 605  
Boston, Massachusetts 02108  
Telephone: (617) 994-4900  
Facsimile: (617) 742-7774

Anthony P. Onello, Jr.  
Anthony P. Onello, Jr.  
Registration Number 38,572  
Attorney for Applicants



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INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is submitted:

- ☐ under 37 CFR 1.129(a), or  
(First/Second submission after Final Rejection)
- ☒ under 37 CFR 1.97(b), or  
(Within three months of filing national application other than a CPA under §1.53(d); or within three months of date of entry of the national stage in international application; or before mailing date of first Office Action on the merits; or before mailing date of first Office Action after filing RCE under §1.114, whichever occurs last)
- ☐ under 37 CFR 1.97(c) together with either:
  - ☐ a Statement under 37 CFR 1.97(e), as checked below, or
  - ☐ the \$180.00 fee under 37 CFR 1.17(p), or  
(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, or other action which closes prosecution, whichever occurs first)
- ☐ under 37 CFR 1.97(d) together with:
  - ☐ a Statement under 37 CFR 1.97(e), as checked below, and
  - ☐ the \$180.00 fee set forth in 37 CFR 1.17(p).  
(Filed after final action or notice of allowance, whichever occurs first, but before payment of the issue fee)

Applicants: Mark H. Litchfield, *et al.*  
Serial No.: 10/642,720

Statement Under 37 1.97(e)

- ☐ Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, after making reasonable inquiry, was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Enclosed herewith is form PTO-1449:

- ☒ Copies of cited references are enclosed.
- ☐ Copies of cited references are enclosed except those entered in prior application, U.S. Serial No. \_\_\_\_\_, and references that are not required to be submitted under 37 CFR 1.98.
- ☐ The listed references were cited in a counterpart foreign application.

Concise Explanation Requirement (non-English references):

- ☐ The "concise explanation" requirement under 36 CFR 1.98(a)(3)(i) for reference XX is satisfied by:
  - ☐ the explanation provided on the attached sheet.
  - ☐ the explanation provided in the Specification.
  - ☐ abstract.

It is requested the information disclosed herein be made of record in this application.

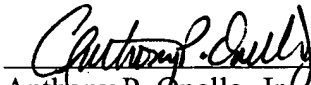
Applicants: Mark H. Litchfield, *et al.*  
Serial No.: 10/642,720

Method of payment:

- ☐ Enclosed is a check in the amount of \_\_\_\_\_.
- ☐ Please charge Deposit Account of 50-1798 in the amount of \_\_\_\_\_.
- ☐ Two duplicate copies of this Statement are enclosed.
- ☒ Please charge any deficiency in fees and credit any overpayment to Deposit Account No. 50-1798.

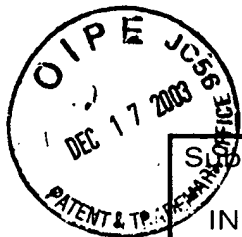
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Anthony P. Onello, Jr.  
Registration Number 38,572  
Attorney for Applicants



Subst. Form PTO-1449				Docket Number (Optional) <b>TSC-0015</b>		Application Number <b>10/642,720</b>		
INFORMATION DISCLOSURE CITATION IN AN APPLICATION  (Use several sheets if necessary)				Applicant <b>Mark H. Litchfield, et al.</b>				
				Filing Date <b>08/18/03</b>		Group Art Unit <b>3712</b>		
U. S. Patent Documents								
EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	AA							
	AB							
	AC							
	AD							
	AE							
	AF							
	AG							
	AH							
	AI							
	AJ							
	AK							
FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
	AL							
	AM							
	AN							
	AO							
	AP							
	AQ							
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)								
	AR	Caruso, M., "Applications of Magnetic Sensors for Low Cost Compass Systems," <a href="http://www.ssec.honeywell.com/magnetic/datasheets/lowcost.pdf">http://www.ssec.honeywell.com/magnetic/datasheets/lowcost.pdf</a>						
	AS	Trebi-Ollennu, A., et al., "Design and Analysis of a Sun Sensor for Planetary Rover Absolute Heading Detection," IEEE Transactions on Robotics and Automation, vol. 17, no. 6, pp. 939-947, December 2001.						
	AT	Anonymous Author, "EPS Tenerife: In Spira's Solar Tracking," November 11, 2002, <a href="http://www.inspira.es/newsroom/981139.html">http://www.inspira.es/newsroom/981139.html</a>						
EXAMINER				DATE CONSIDERED				
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy with next communication to applicant.								



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	BA							
	BB							
	BC							
	BD							
	BE							
	BF							
	BG							
	BH							
	BI							
	BJ							
	BK							
FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
	BL							
	BM							
	BN							
	BO							
	BP							
	BQ							
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)								
	BR	Cornwall, C., "General Solar Position Calculations" March 21, 2003; <a href="http://www.srrb.noaa.gov/highlights/sunrise/solpos/solareqns.pdf">http://www.srrb.noaa.gov/highlights/sunrise/solpos/solareqns.pdf</a>						
	BS	Deans, Matthew, "Antarctic Meteorite Search: Sun Tracking Experiment." Carnegie Mellon University/NASA 1997, <a href="http://www-2.cs.cmu.edu/~meteorite/Antarctica97/SunTracking/">http://www-2.cs.cmu.edu/~meteorite/Antarctica97/SunTracking/</a>						
	BT	Usher, Kane et al., "A Camera as a Polarized Light Compass: Preliminary Experiments," November 2001, <a href="http://www.araa.asn.au/acra/acra2001/Papers/Usher.pdf">http://www.araa.asn.au/acra/acra2001/Papers/Usher.pdf</a>						
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